COM Express Type 6

TRIA C6C-QCSX

Qualcomm Snapdragon® X Elite

Preliminary product information

95 x 95

tbd

0 - +60°C

Qualcomm

COM Express
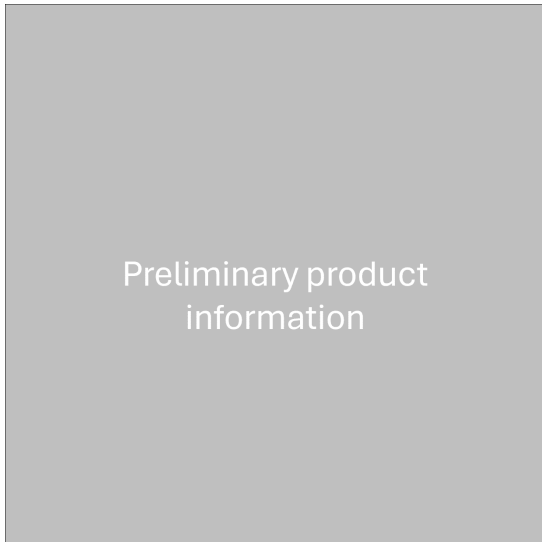
Highlights

- Qualcomm Snapdragon® X Elite processor
- Scalable CPU performance, up to twelve cores
- Powerful Qualcomm® Adreno™ GPU
- Qualcomm® Hexagon™ NPU with 45 TOPS of AI performance
- LPDDR5X main memory, memory-down, up to 64GB
- Three DisplayPort interfaces
- LVDS / Embedded DisplayPort interface
- PCI Express® Gen 4, up to 1x8 + 1x4/2x2
- PCI Express® Gen 3, 2x1 + 1x2/1x1
- Up to two USB4, four USB 3.2 Gen1/2 and eight USB 2.0 ports
- Two UARTs
- Up to 1TB on-board UFS Flash
- 1 / 2.5 Gb Ethernet port, TSN support
- Trusted Platform Module TPM 2.0
- COM Express Type 6, Compact
- Long-term product availability

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Technical Data

Technology	Arm
Formfactor / Interface	COM Express Compact Type 6
CPU	Qualcomm Snapdragon® X Elite X1E-84-100, 12C, 4.2GHz X1E-80-100, 12C, 4.0GHz X1E-78-100, 12C, 3.4GHz Qualcomm Snapdragon® X Plus X1P-66-100, 10C, 4.0GHz X1P-64-100, 10C, 3.4GHz X1P-46-100, 8C, 4.0GHz X1P-42-100, 8C, 3.4GHz Qualcomm Snapdragon® X X1-26-100, 8C, 2.7GHz
Chipset	Integrated into SoC
RAM	LPDDR5X memory, memory-down Capacity options: 8GB, 16GB, 32GB, 64GBB
Flash	Up to 1TB UFS, soldered (optional)
Storage Interfaces	UFS (onboard) NVME at PCI Express (carrier design dependent)
USB	Up to 2x USB4 Gen 2, mutually exclusive with DDI 1, 2 4x USB 3.2 (Gen 1 & 2) 8x USB 2.0 Note: capabilities depending on carrier design
Serial Interfaces	2x UART
Bus Interfaces	PCI Express® Gen 4, up to 1x8/(1x4) [1] + 1x4/2x2 PCI Express® Gen 3, 2x1 + 1x2/1x1 [1] SKU dependent
Display Controller	Adreno™ GPU, up to 1.5GHz
Display Interfaces	Up to 3x Digital Display Interface (DP 1.4b), DDI 1, 2 mutually exclusive with USB4 Up to two USB4/USB-C ports (DP tunneling) 1x Embedded DisplayPort 1.4b, mutually exclusive with LVDS 1x LVDS 24bit, dual-channel, mutually exclusive with eDP
Network Interface	10/100/1000Base-TX, 2.5G[2] based on Qualcomm QPS615, with TSN support [2] Available bandwidths depending on carrier design
Audio Interface	SoundWire
Security Device	TPM 2.0
Miscellaneous	Watchdog Timer: Initiates system reset, programmable Fan Supply: 4-pin header for CPU fan, PWM speed controlled and PWM speed control for system fan supported RTC battery: external System Monitoring: voltage, temperature, CPU fan, system fan
Firmware	UEFI boot

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OS Support	Windows 11 IoT Yocto Linux Ubuntu Linux (on request) Android (on request)
Power Requirement	Voltage: +8.5V to +18V, +5V Stby optional Power Consumption: tbd
Environment	Ambient Temperature: 0° ... 60°C (operating) -25° ... 85°C (storage) Humidity: 5 ... 95% (operating, non-condensing), 5 ... 95% (storage, non-condensing)
Dimensions	95mm x 95mm
Certificates	UL / CE

Technical Data for TRIA C6C-QCSX

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Order Reference

Order No.	Description	Reference	
tbd	Contact Tria for ordering information	MSC C6C-QCSX-xxxxx	OR

Ordering Information for TRIA C6C-QCSX *PV = Preferred variant; OR = on Request (in OEM quantities only)

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Accessories

Carrier Boards

Order No.	Description	Reference
111650	COM Express Type 6 Evaluation Carrier Board with various PCI Express x1, x4 and x16 slots, USB 3.0/2.0, GbE, M.2, SD card socket, SATA, DisplayPort, LVDS, eDP, VGA, HD audio interfaces; ATX power connector. Dimensions: 305 x 244 mm (ATX form factor)	MSC C6-MB-EV4 PCBFTX

Carrier Board TRIA C6-MB-EV4

Cooling Solutions

Order No.	Description	Reference
tbd	Contact Tria for ordering information	MSC C6C-QCSX-Hxxxx

Cooling Devices for TRIA C6C-QCSX

Order No.	Description	Reference
79809	Fan kit for Heatsink MSC HCA-ALP/RLP-0x HSI-xxx, MSC C6B-ALP/ RLP-0x HSI-xxx, MSC C6B-TLH-0x HSI-xxx, MSC C6C-ALP/RLP-0x HSI-xxx, MSC C6C-TLU-0x HSI-xxx, MSC C6C-WLU-0x HSI-xxx, MSC C6C-ALN/ASL-0x HSI-xxx, MSC C6C-EL-0x HSI-xxx, MSC C6C-RYZx-0x HSI-xxx, PWM fan 80x80x15mm.	MSC C6C-FANKIT-01-HSF-001

Fan Kit for COM Express Heatsinks

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Tria Technologies GmbH
Industriestr. 16
76297 Stutensee
info@tria-technologies.com
tria-technologies.com